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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,780	06/26/2001	Andreas Bulan	Mo-6268/LeA 34,400	1808
34947	7590	08/02/2004	EXAMINER	
LANXESS CORPORATION PATENT DEPARTMENT/ BLDG 14 100 BAYER ROAD PITTSBURGH, PA 15205-9741			BOS, STEVEN J	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/891,780  
Filing Date: June 26, 2001  
Appellant(s): BULAN ET AL.

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Jill Denesvich  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 7, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: issues 3 and 4 have been overcome by the amendment filed after final rejection therefore issues 3 and 4 are moot.

**(7) *Grouping of Claims***

The rejection of claims 1-4 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,089,241                                      SMITH                                      2-1992

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Smith '241. See cols. 5-8 and the examples.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '241 in view of the admitted prior art on instant pg. 3, lines 4-7.

Smith teaches the instantly claimed process wherein bottoms are evaporated at 50-150°C and then treated with calcium hydroxide or calcium oxide (see col. 5-8). The instant admitted prior art states that commercial arsenic containing hydrogen fluoride

has water, sulfuric acid and sulfur dioxide contents which overlap those instantly claimed and thus would have been obvious.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

**(11) *Response to Argument***

Appellant argues that Smith teaches a process for converting hexafluoroarsenic acid or salts thereof in an aqueous solution to arsenic acid or salts thereof, by carrying out a difficult hydrolysis of hexafluoroarsenic acid or salts thereof in the presence of certain catalysts at temperatures of 50 to 150°C in the concentrating and hydrolyzing steps in contrast to the instant claims which relate to a process for removing arsenic compounds from the distillation bottoms obtained in the distillation of arsenic-containing hydrogen fluoride by concentrating the distillation bottom at a low temperature of 40 to 60°C ... without the difficult hydrolysis of hexafluoroarsenic acid or salt thereof.

However, firstly, the instant claims do not exclude the taught hydrolysis. Secondly, appellant admits and Smith clearly teaches that the bottoms are concentrated at 50-150°C which not only overlaps the instantly claimed temperature range of 40-60°C, it also clearly anticipates the instantly claimed temperature since the taught 50°C falls within the instantly claimed temperature range.

Art Unit: 1754

Appellant argues that Smith lacks a teaching of a process for removing arsenic compounds from distillation bottoms ... reacting the residue with calcium hydroxide, calcium oxide, or a mixture thereof.

However Smith suggests the instantly claimed positive process steps as explained above and below which would result in removal of arsenic compounds from distillation bottoms containing same. Smith teaches reacting calcium oxide or hydroxide with the resulting mixture or residue after the taught step of concentrating the distillation bottoms at col. 8, lines 18-50.

Appellant again insists that Smith teaches application of a temperature range of 50-150°C to a reaction mixture which is hydrolysable to arsenic acid or salts thereof, in contrast to the instant temperature range of 40 to 60°C which is not applied to a hydrolysable reaction mixture as described by Smith.

Again, however, it is noted that the instant claims do not exclude the taught hydrolysable reaction mixture and in fact even include same since the reaction or aqueous mixture, ie. distillation bottoms, is taught to comprise sulfuric acid, hydrofluoric acid and hexafluoroarsenic acid (see col. 2, lines 54-59, and col. 5, lines 17-26) which is exactly as claimed in instant claim 4 which recites that the distillation bottoms comprise sulfuric acid, hydrofluoric acid and hexafluoroarsenic acid.

Appellant states that cited col. 5-8 and the Examples of Smith describe hydrolysis of hexafluoroarsenic acid.

This may be true but also taught in Smith is the instantly claimed concentration of the distillation bottoms, ie. aqueous mixture or starting aqueous mixture. See col. 6,

lines 8-13. It is also noted that instant claim 2 recites that the bottoms contain less than 20% by weight water after concentration which means that the bottoms would contain more than 20% by weight water before concentration and thus would be the same as the taught hydrolysable mixture of Smith which also contains from about 2 to about 20% by weight water (see col. 5, lines 23-24).

Thus the taught evaporation to concentrate the starting aqueous mixture at about 50°C anticipates step a of claim 1 since the starting aqueous mixture has the same components as the instantly claimed distillation bottoms as explained above.

Appellant argues that even where the prior art discloses a range, which overlaps, but no specific examples falling within the range are disclosed, anticipation must be based on the prior art disclosure of the claimed invention with sufficient specificity and that the examiner must provide reasons for anticipation and obviousness of the narrow range and goes on to refer to the case law of *Ex parte Lee*, 31 USPQ2d 1105.

With regard to the case law of *Ex parte Lee*, it is noted that it states in part in section 1 that "disclosure in prior art of any value of claimed range is anticipation of that range." It is noted that the prior art, Smith, teaches a temperature of 50°C (see col. 6, line 12) which is exactly in the middle of the instantly claimed temperature range. Therefore the examiner does not have to provide reasons for anticipation and obviousness of the narrow range.

For the above reasons, it is believed that the rejections should be sustained.

Application/Control Number: 09/891,780

Page 7

Art Unit: 1754

Respectfully submitted,

Steven Bos  
Primary Examiner  
Art Unit 1754



sjb  
July 27, 2004

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